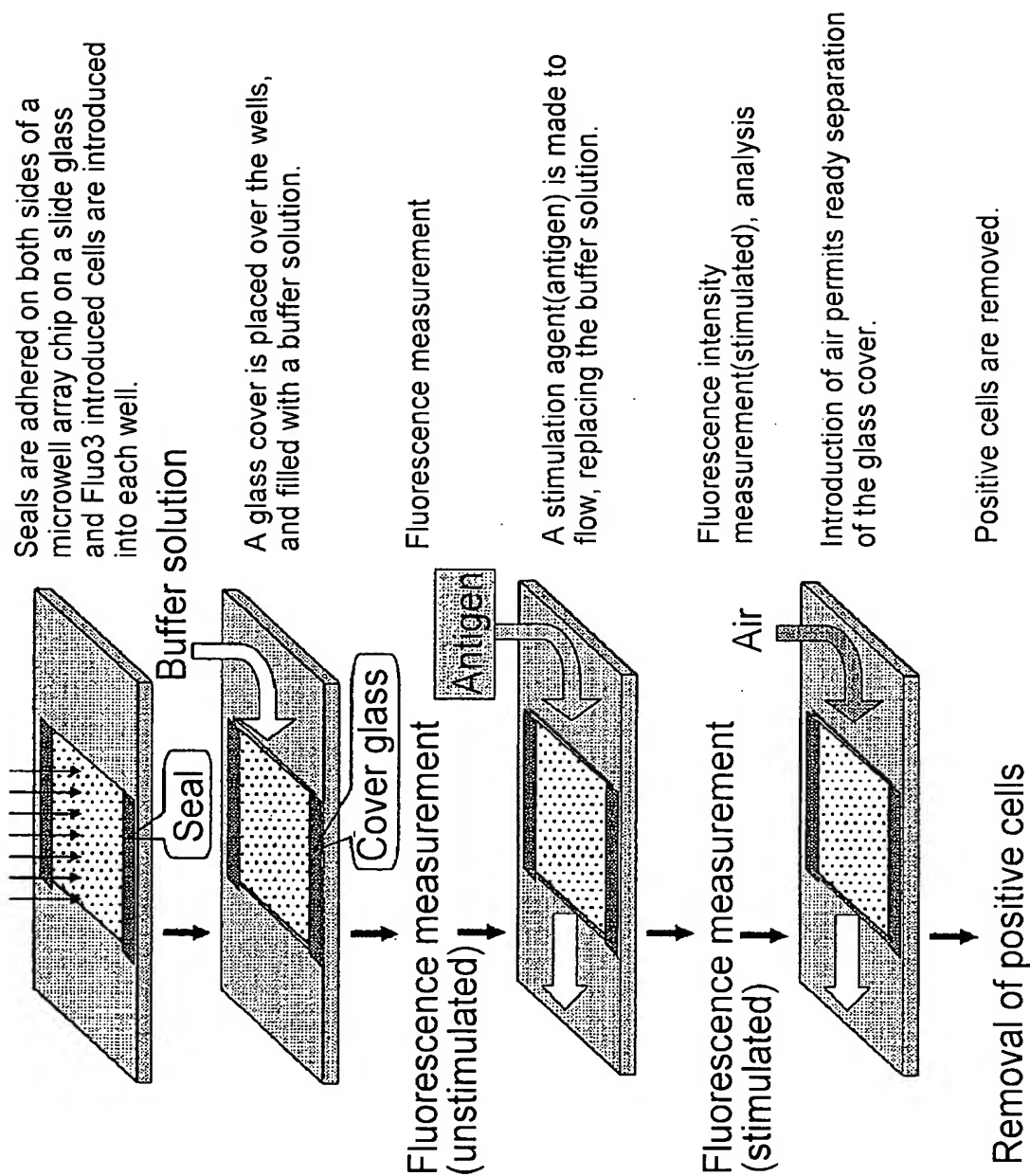


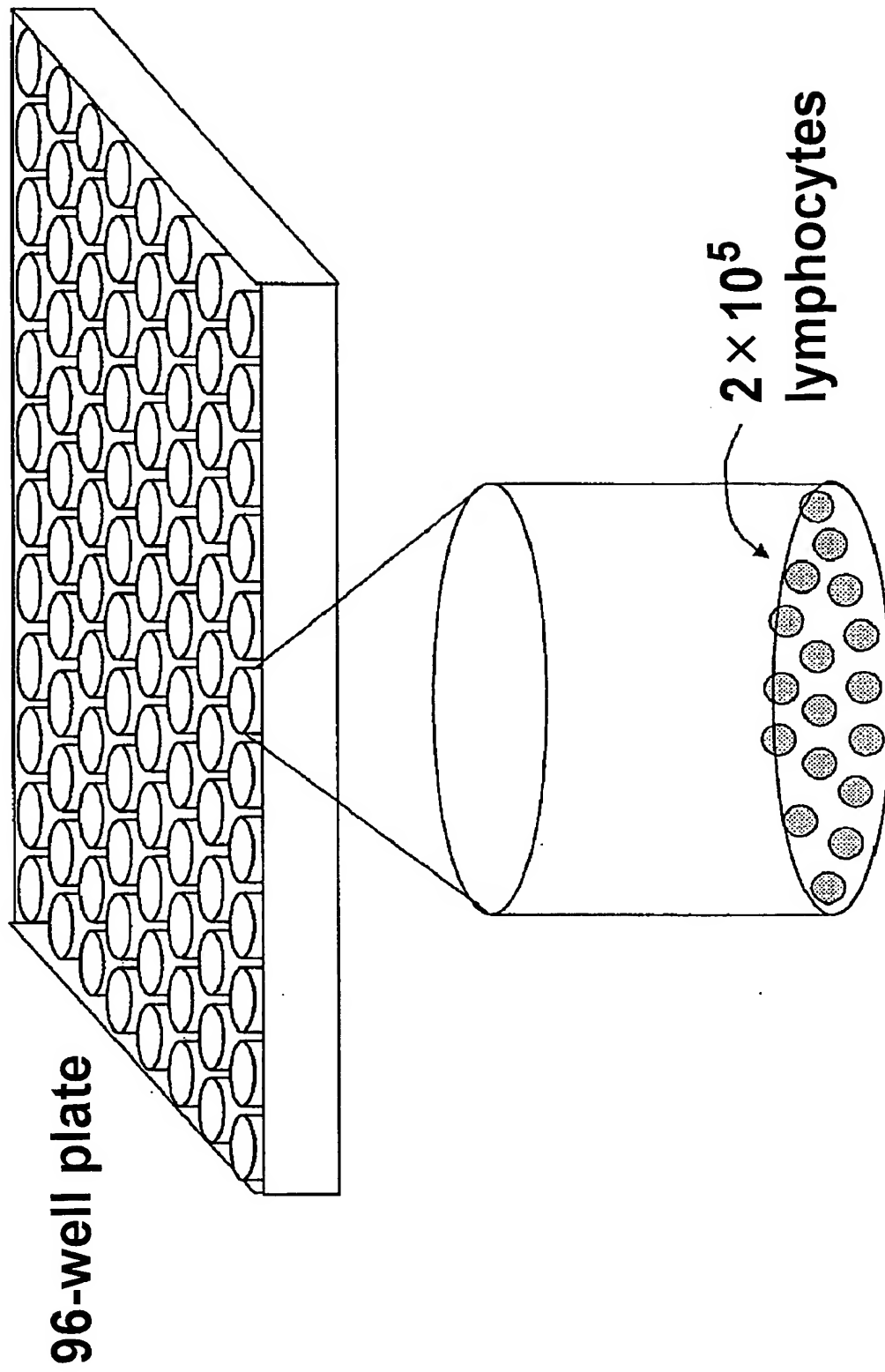


F i g 2

## Introduction of cells and antigen stimulation

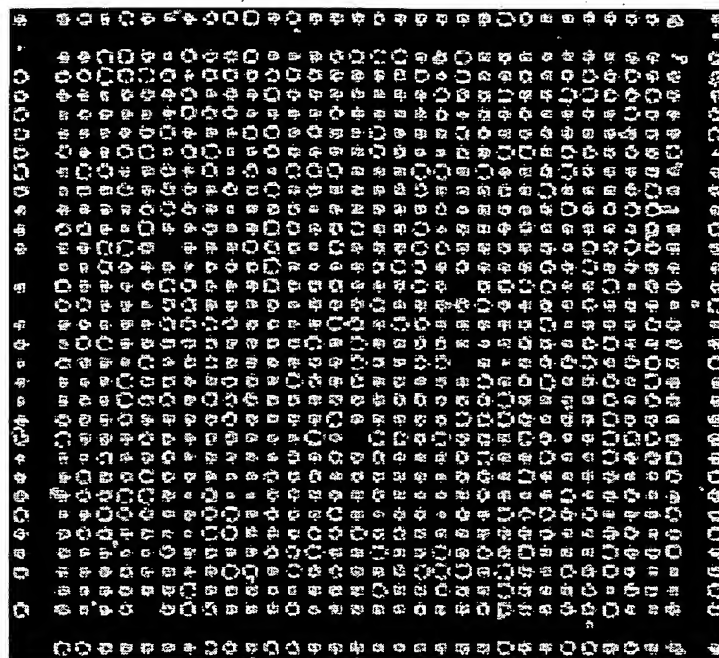


F i g 3



F i g 4

Microarray scanner



Fluorescence microscopy

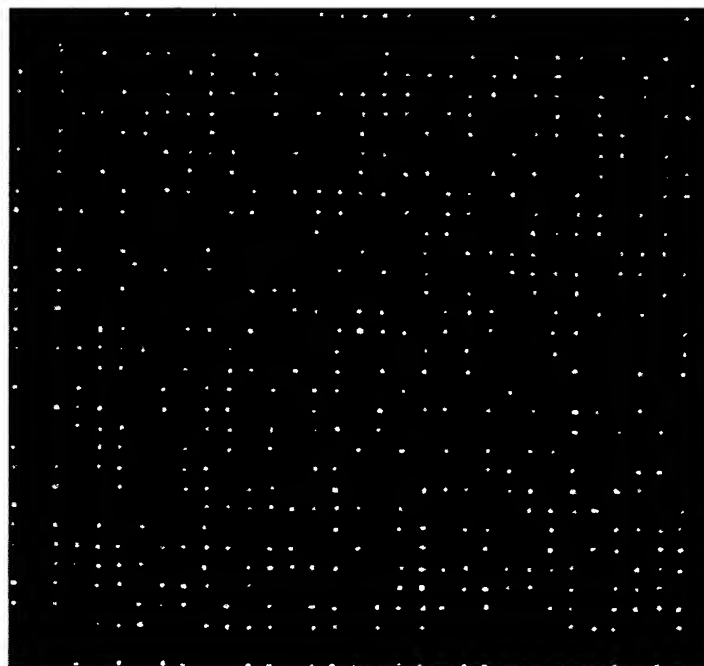
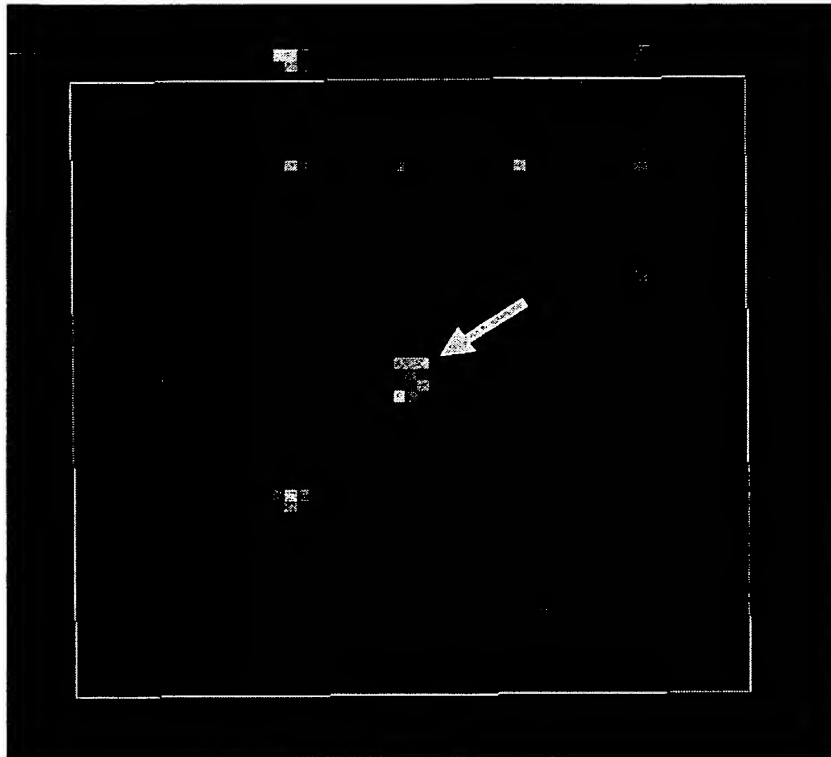
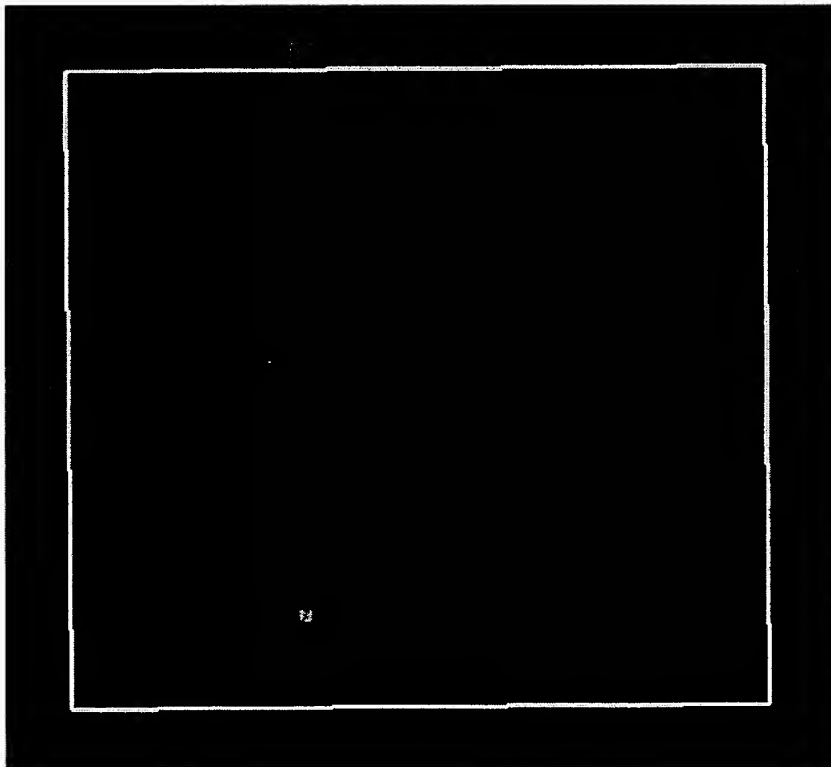
One cluster =  $30 \times 30$  wells

Fig 5

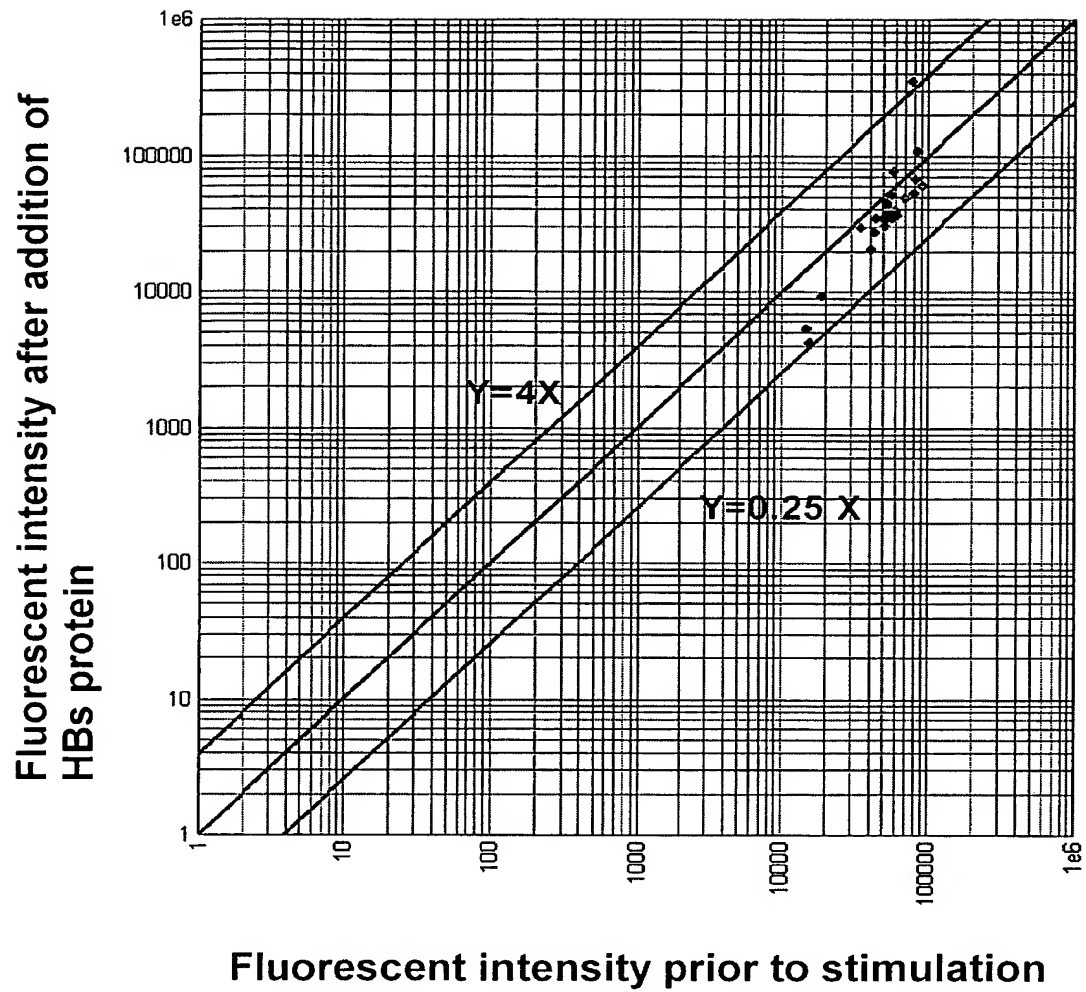
After addition of HBs protein



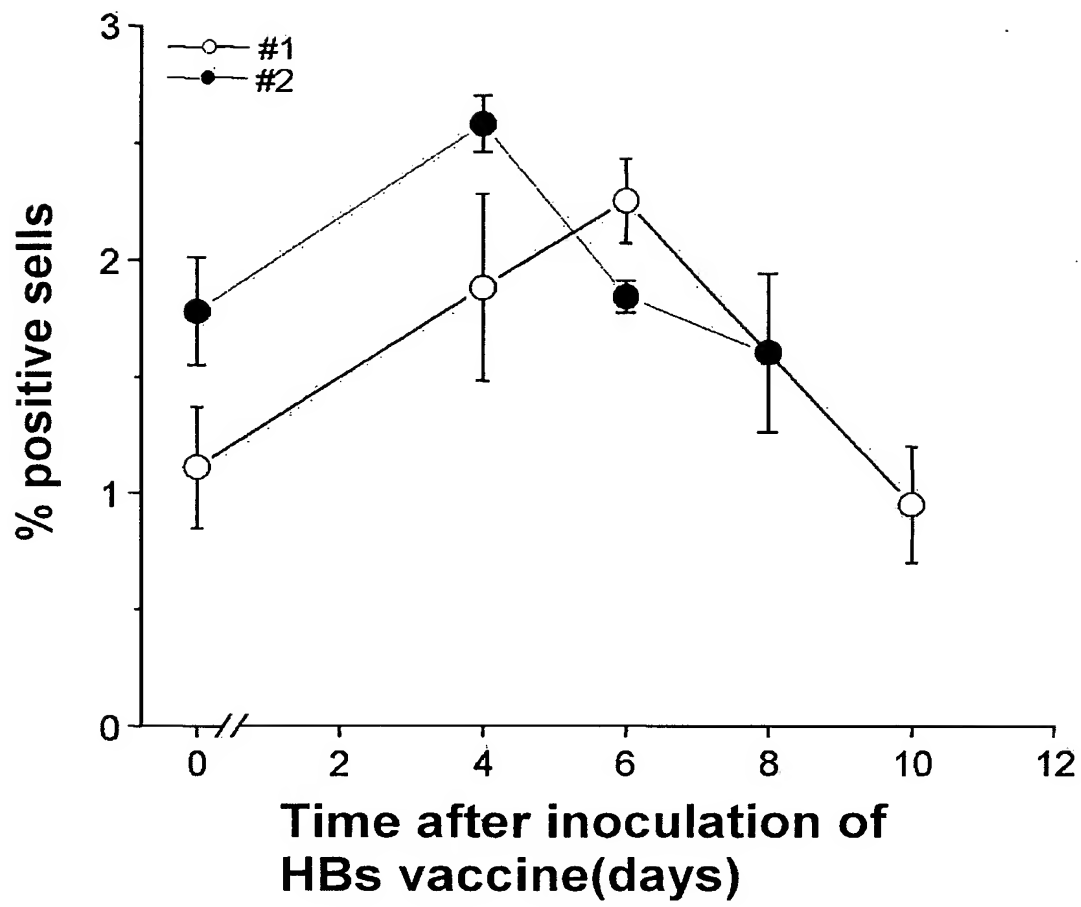
Prior to stimulation



F i g 6



F i g 7

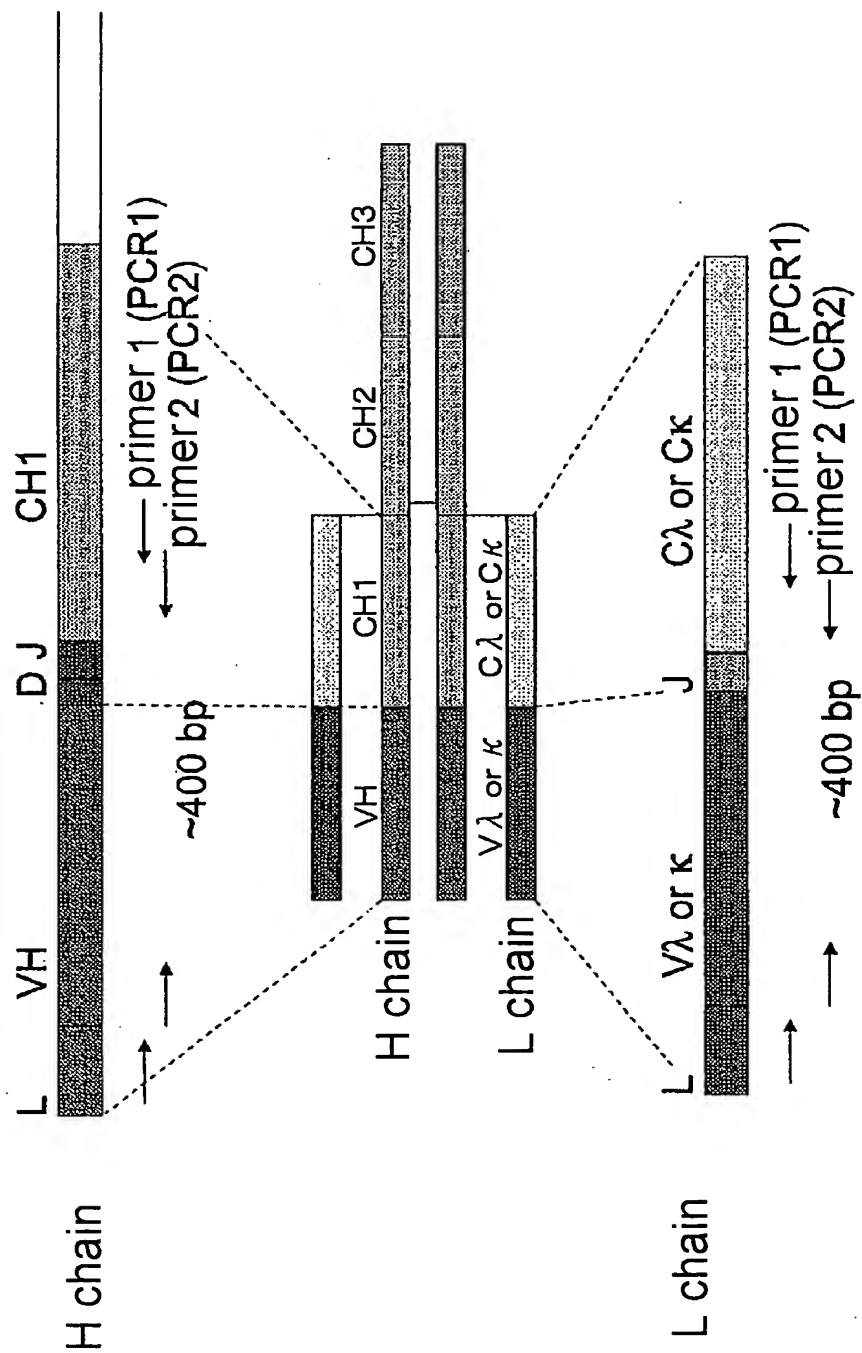


F i g 8

# Amplification of antibody gene of B cells Antigen-specific B-cells

↓ RT  
↓ PCR1  
↓ PCR2

## Structure of antibody





## F i g 9

1st: 1 cagtctccagccaccctgtctttgtctccaggggcaaagtagccaccctctcctgcnggg 60  
 |||||  
 2nd: 55 cagtctccagccaccctgtctttgtctccagggg-aaag-agccaccctctcctgcagg 112  
 |||||  
 1st: 61 ccagtcagagtggttagcancactacttagcctgggtaccacaagaaacactggccaggctccc 120  
 |||||  
 2nd: 113 ccagtcagagtggttagcagctacttagcctgggtaccacaagaaac-ctggccaggctccc 171  
 |||||  
 1st: 121 aggtcctnatctatgatgcatctcaacaggggccactggcatcccagccaggttaagtgg 180  
 |||||  
 2nd: 172 aggtcctcatctatgatgcatc-caacaggggccactggcatcccagccaccttcagtgg 230  
 |||||  
 1st: 181 cagtgggtctgggacagacttcaactctcaaccatcancagccttagagcctgaagattntgc 240  
 |||||  
 2nd: 231 cagtgggtctgggacagacttcaactctcaaccatcagcagccttagagcctgaagattttgc 290  
 |||||  
 1st: 241 agttnattactgtcancagcggtatcaactggcctctcaactttcggcggaggaccaaggc 300  
 |||||  
 2nd: 291 agtttattactgtcagcagcgtagcaactgggtgctcaactttcggcggaggaccaagg- 349  
 |||||  
 1st: 301 tggagatcaaacgaaactgtggctgcaccatctgtc 335  
 |||||  
 2nd: 350 tggagatcaaacgaaactgtggctgcaccatctgtc 384  
 |||||

1st: 1	ggtcctgtctcaggtgcagctgcaggcagtcgggccagtgactggtagaaccttcggag	60
2nd: 48	ggtcctgtcccagctgcagctgcagg-agtcgggccag-gactggtagaaccttcggag	105
1st: 61	accctgtccctcacctgcactgtctcttggtgggtccatcagcagtagtagtactactgg	120
2nd: 106	accctgtccctcacctgcactgtctcttggtgggtccatcagcagtagtagtactactgg	165
1st: 121	ggctggatccgccagccccccagggaagggtggagtggaattgggagtatctattatagt	180
2nd: 166	ggctggatccgccagccccccagggaagggtggagtggaattgggagtatctattatagt	225
1st: 181	gggagcacctactacaacccgtccctcaagagtcgagtcaccatatccgtagacacgtcc	240
2nd: 226	gggagcacctactacaacccgtccctcaagagtcgagtcaccatatccgtagacacgtcc	285
1st: 241	aagaaccagttctccctgaagctgagctctgtgaccgccgagacacggctgtgtattac	300
2nd: 286	aagaaccagttctccctgaagctgagctctgtgaccgccgagacacggctgtgtattac	345
1st: 301	tgtgcgagacag	312
2nd: 346	tgtgcgagacag	357